

Work Order ID 152677

152677

Page 1

Thursday, November 03, 2016 3:44:35 PM

Item ID: D5359-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Strut Assembly, LH
 Start Date: 11/4/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 11/4/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: Em Date: 10/11/14 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5359	A								

100

100

Bandsaw
 Jeaspa Bandsaw

Memo

CUT BLANK 43.13

SCRAP

142

216-11-11

110

110

HAAS 1
 HAAS CNC vertical machine #1

Memo

MILL AS PER FOLIO FB462 AND DWG D5359

FOLIO REV: AA

DWG REV: A

DEBURR

0.06

0.25

1

2

26

DAS
 33
 9-89

16/11/17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00				1	0		DAS 33 16-11-17 9-89
150 *150* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00				1	0		DAS 45 16-11-17 9-89
160 *160* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.04				(x1)	0		2016/11/18 BEB

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

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Item ID: D5359-041 Accept ***N900040100*** Setup Start ***NS1***
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Item Name: Strut Assembly, LH
Start Date: 11/4/2016 Start Qty: 1.00 ***1*** Cust Item ID:
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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 *170* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							DAS 38 9-89 NOV 18 2016
									send for test fit do not paint - see Stan
									POSITIVE RECALL EFFECTIVE 11/11/8 AUTH 8m RELEASED _____ DATE _____
171 *171* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo MASK HOLES AS PER DWG. START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____	0.00 0.03 0.00							PTO DAS 38 9-89 N/A
172 *172* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							N/A

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WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☒ Quality ☐ Other ☐			
Date : <u>17-01-24</u>	Step #: <u>100</u>	QTY Effective : <u>2</u>		MRB (QSI042) Approval <u>PD</u> <u>9</u> <u>12-01-24</u>	
Description Work Order Deviation		Disposition			
<u>Scrap desing charge</u>		<u>will kept for bending template</u>			
		Completed By			
		Lead hand / Supervisor Approval Verification			
		QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☒	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	☒ Drawing
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
				OTHER : _____			

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* Small Fab Small Fab	Memo ASSEMBLE AS PER DWG SEE DWG. NOTES FOR TORQUE SPECS.	0.00 0.04							
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
200 *200* Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo	0.00 0.00							

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Work Order ID 152677***152677***

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Item ID: D5359-041 Accept ***N900040100*** Setup Start ***NS1***
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Item Name: Strut Assembly, LH
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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC21- Final Inspection - Work Order Release	0.00							
210									
QC	Memo	0.02							
Quality Control									


JAN 25 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER : _____																									

Picklist Print

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Work Order ID: 152677

152677

Parent Item: D5359-041

D5359-041

Parent Item Name: Strut Assembly, LH

Start Date: 11/4/2016

Required Date: 11/4/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: A RQ 16.03.23 Verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
90296A202 *90296A202* Heli-Coil Insert		Purchased	No				Each	20.0000		2			
									**				
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				ST564				20					
				m127824				20					
D2690-6 *D2690-6* Lanyard		Manufactured	No				Each	19.0000		2			
									**				
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				ST009				19					
				151514				19					
D5359-1 *D5359-1* Strut, LH		Manufactured	No				Each	0.0000		1			
									**				
M6061T6B0.750X03.00 0		Purchased	No			100	f	12.0000	3.593	3.782105			
M6061T6B0 750X03 000 6061-T6 Bar .750 x 3.00									**				
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				MAT002				12					
				m134776				12					
										10.8			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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OTHER :																																																															

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Parent Item: D5359-041

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Parent Item Name: Strut Assembly, LH

Start Date: 11/4/2016

Required Date: 11/4/2016

Start Qty: 1.00

Required Qty: 1.00

MS17984-C406

Purchased

No

Each

2.0000

1

MS17984-C406

Pin, Quick Release

Location

Loc Qty

Loc Code

over005

2

m134606

2

MS17984-C407

Purchased

No

Each

2.0000

1

MS17984-C407

Pin, Quick Release

Location

Loc Qty

Loc Code

over005

2

m134606

2

MS27039-1-07

Purchased

No

Each

202.0000

2

MS27039-1-07

Screw

Location

Loc Qty

Loc Code

GA

2

125654

2

ST281

200

m135948

200

NAS1149D0363J

Purchased

No

Each

1,172.000

4

NAS1149D0363.J

Washer

Location

Loc Qty

Loc Code

GA

336

m134055

336

ST263

836

m135864

836

DQA: _____ Date: _____



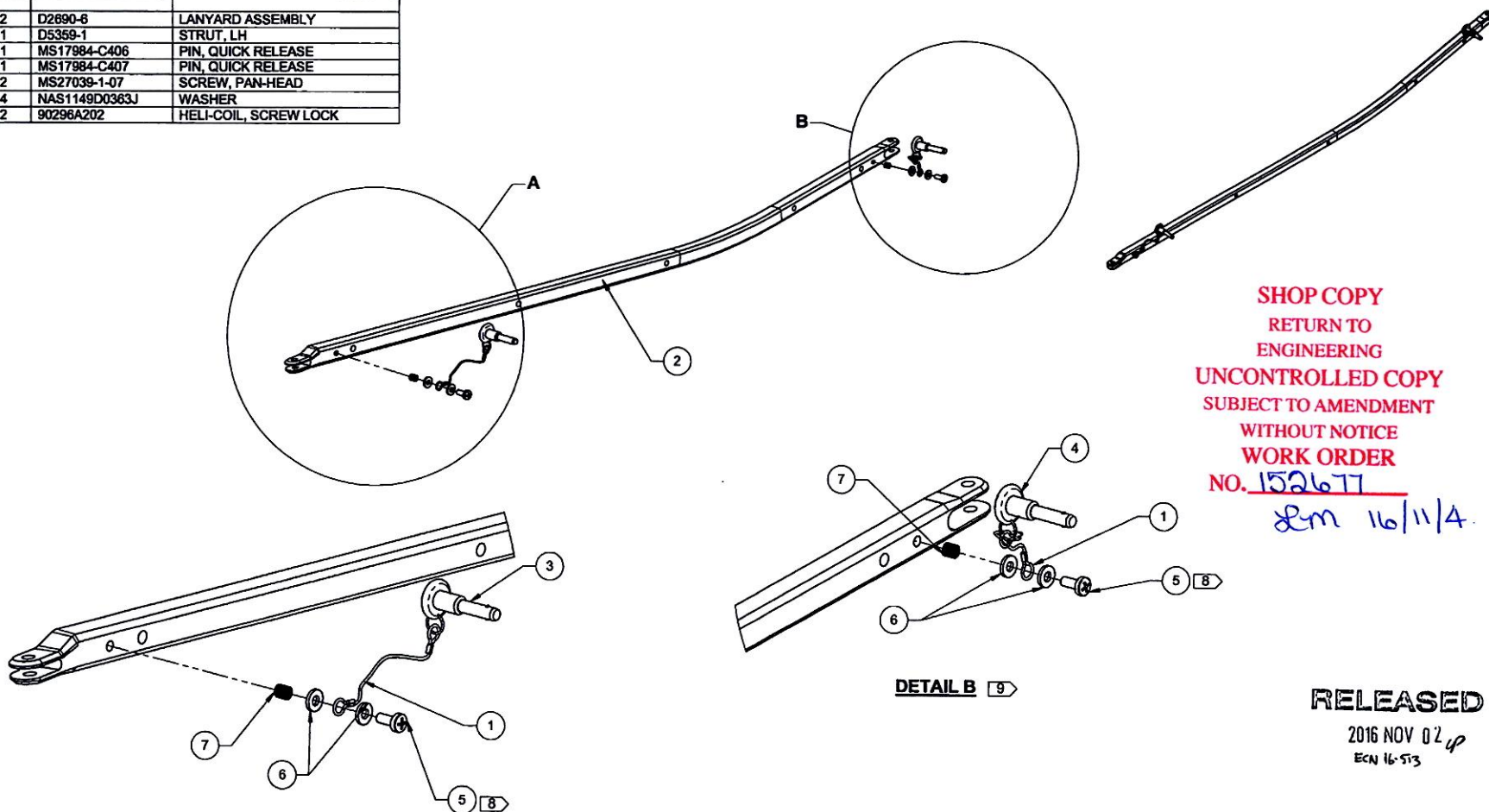
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER :					

ITEM	QTY	P/N	DESCRIPTION
	X	D5359-041	STRUT ASSEMBLY, LH
1	2	D2690-6	LANYARD ASSEMBLY
2	1	D5359-1	STRUT, LH
3	1	MS17984-C406	PIN, QUICK RELEASE
4	1	MS17984-C407	PIN, QUICK RELEASE
5	2	MS27039-1-07	SCREW, PAN-HEAD
6	4	NAS1149D0363J	WASHER
7	2	90296A202	HELI-COIL, SCREW LOCK



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 152677

2m 16/11/4

DETAIL B 9

RELEASED

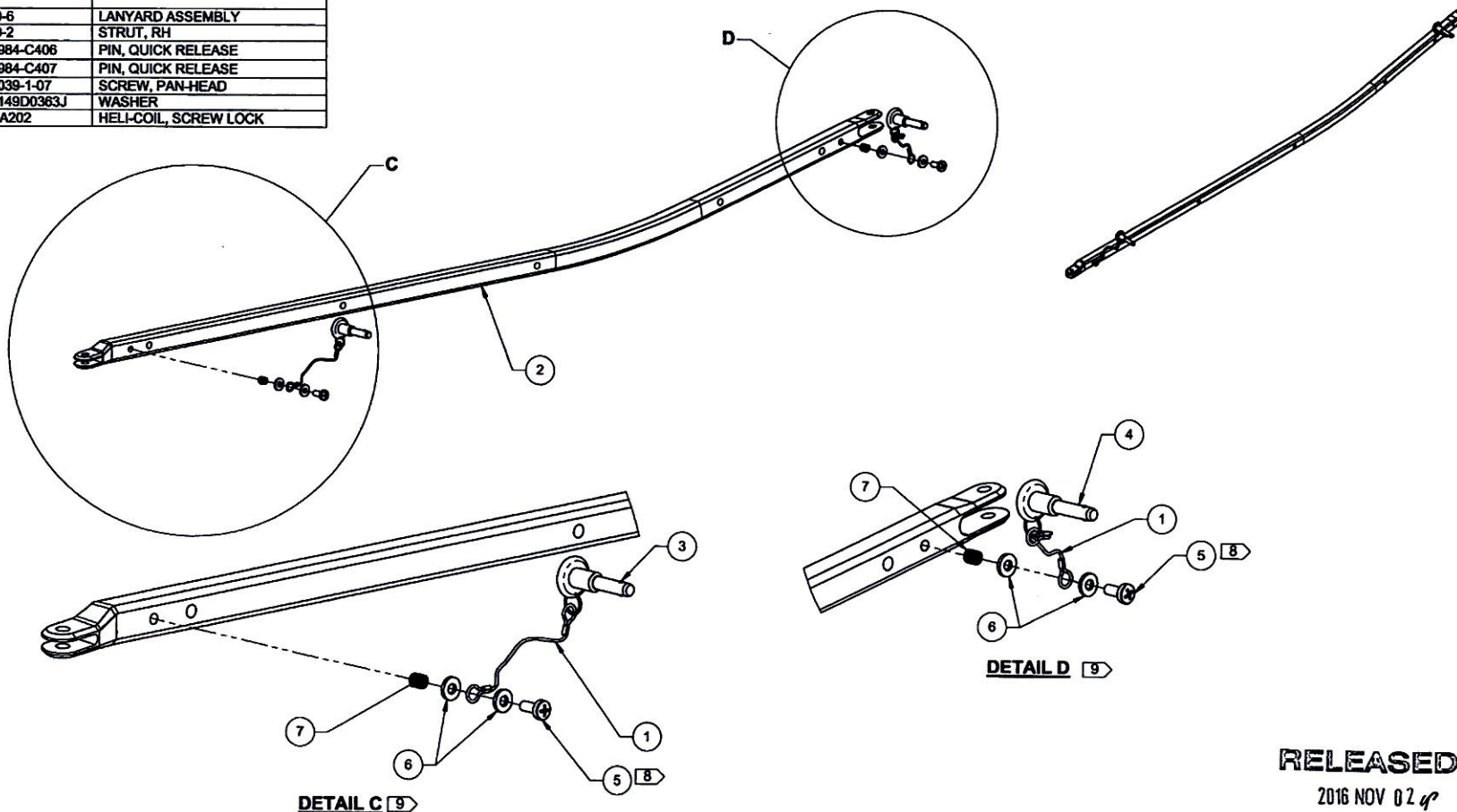
2016 NOV 02
ECN 16-513

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
 - 7) WEIGHT: 2.21 lbs
 - 8) TORQUE TO 20-25 IN-LB
 - 9) ITEM 1 AND ITEMS 3-7 MAY BE INSTALLED ON EITHER SIDE

D5359-041 STRUT ASSEMBLY, LH

APPROVED	A	NEW ISSUE	VS	15.11.23
	REV.	DESCRIPTION	BY	DATE
	DESIGN	VS	DART AEROSPACE LTD	
	DRAWN	VS	HAWKESBURY, ONTARIO, CANADA	
	CHECKED	RF	DRAWING NO.	REV. A
	MFG. APPR.	RQ	D5359	SHEET 1 OF 4
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	STRUT ASSEMBLY	NTS
	DATE	15.11.23	COPYRIGHT © 2016 BY DART AEROSPACE LTD	
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ITEM	QTY	P/N	DESCRIPTION
	X	D5359-042	STRUT ASSEMBLY, RH
1	2	D2690-6	LANYARD ASSEMBLY
2	1	D5359-2	STRUT, RH
3	1	MS17984-C406	PIN, QUICK RELEASE
4	1	MS17984-C407	PIN, QUICK RELEASE
5	2	MS27039-1-07	SCREW, PAN-HEAD
6	4	NAS1149D0363J	WASHER
7	2	90296A202	HELI-COIL, SCREW LOCK



DETAIL C 9

D5359-042 STRUT ASSEMBLY, RH

DETAIL D 9

RELEASED

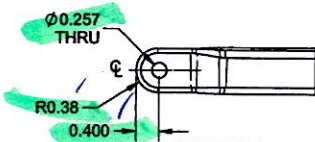
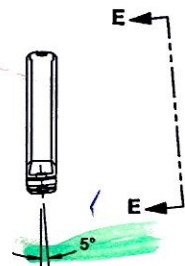
2016 NOV 02 4

NOTES:

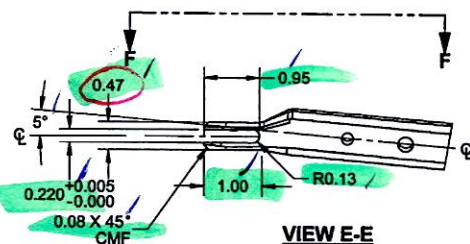
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 2.21 lbs
- 8) TORQUE TO 20-25 IN-LB
- 9) ITEM 1 AND ITEMS 3-7 MAY BE INSTALLED ON EITHER SIDE

APPROVED

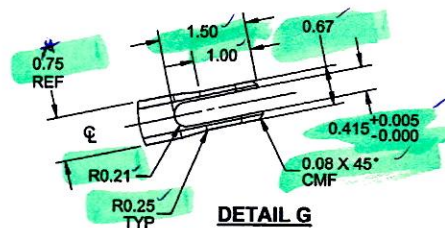
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. A
DRAWN	VS		
CHECKED	RF	DRAWING NO. D5359	SHEET 2 OF 4
MFG. APPR.	RQ	TITLE	SCALE
APPROVED	HS	STRUT ASSEMBLY	NTS
DE APPR.	DS	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	15.11.23		



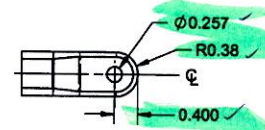
VIEW F-F



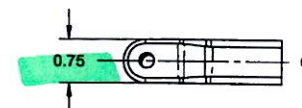
VIEW E-E



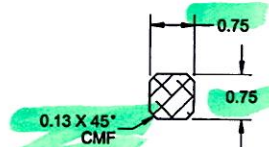
DETAIL G



VIEW H-H



VIEW J-J



SECTION I-I

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.10 lbs
- 8) UNDEFINED FEATURES CONTROLLED BY DART PART "D5359-1.SLDPRT" AT REV. A.
- 9) HOLES FOR TOOLING

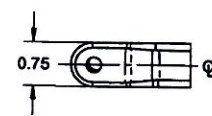
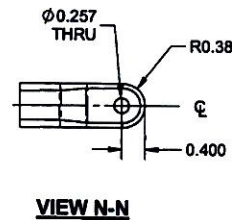
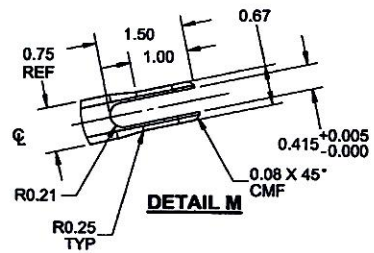
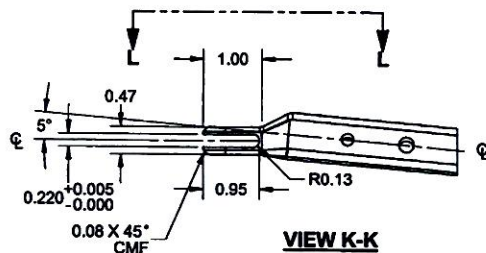
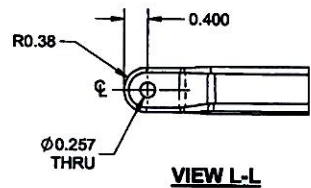
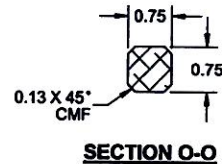
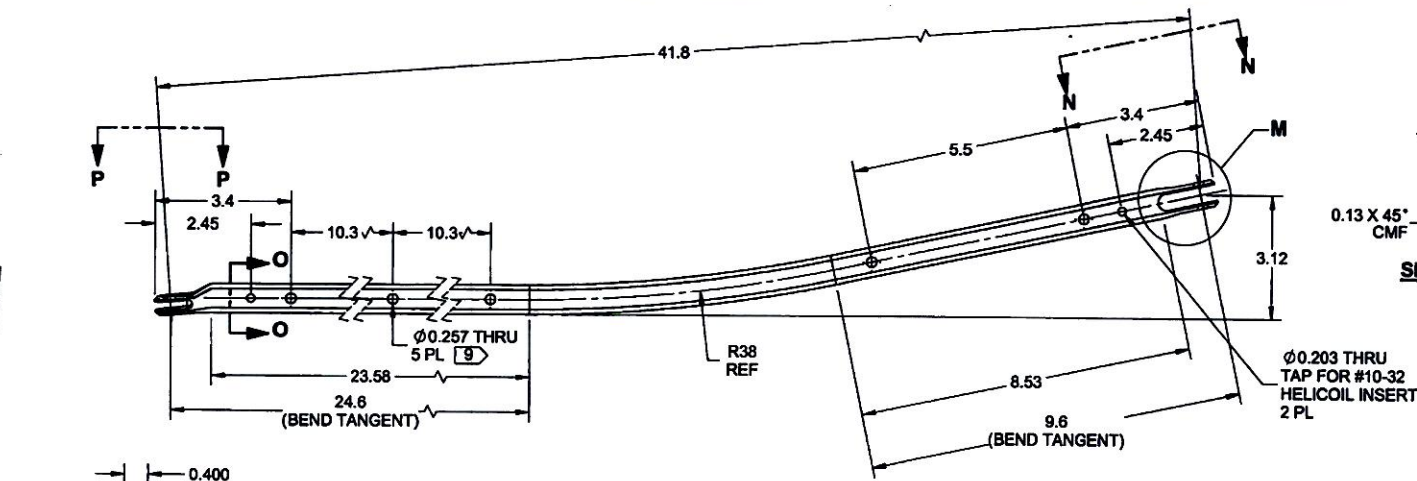
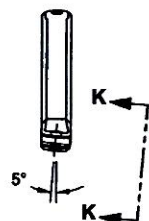
D5359-1 STRUT, LH

RELEASED

2016 NOV 02

APPROVED	DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	DRAWN	VS		
	CHECKED	RF		
	MFG. APPR.	RQ		
	APPROVED	HS		
	DE APPR.	DS		
DATE		15.11.23	D5359	REV. A
			STRUT ASSEMBLY	SHEET 3 OF 3
				SCALE
				NTS
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8 7 6 5 4 3 2 1



RELEASED
2016 NOV 02

- NOTES:**
- 1) MATERIAL: 6061-T6/T651/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
 - 2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 2.10 lbs
 - 8) UNDEFINED FEATURES CONTROLLED BY DART PART "D5359-2.SLDPRT" AT REV. A.
 - 9) HOLES FOR TOOLING

D5359-2 STRUT, RH

APPROVED

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	RQ	D5359	SHEET 4 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	STRUT ASSEMBLY	NTS
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8 7 6 5 4 3 2 1

DART AEROSPACE LTD		Work Order:	152677
Description: Strut, LH		Part Number:	D5359-1
Inspection Dwg: D5359 Rev: A		Page 1 of 1	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
5°	$\pm .5^\circ$	5°	✓		vern	NIP 04
Ø 257	$\pm .006$ $-.001$	.260	✓			
R.35	$\pm .030$	Ø.375	✓			
.400	$\pm .010$	.400	✓			
.47	$\pm .030$	.468	✓			
5°	$\pm .5^\circ$	5.5°	✓			
.220	$\pm .005$ -0	.229	✓			see attached e-mail
Ø 8x45°	$\pm .030$ $\pm .030$	Ø 75x45°	✓		vern	NIP 04
.950	$\pm .030$	.949	✓			
1.00	$\pm .030$	1.00	✓			
R.13	$\pm .030$	.13	✓			
.75	$\pm .030$	0.750	✓			
R 0.21	$\pm .030$	0.210	✓			
R 0.25	$\pm .030$	0.250	✓			
1.50	$\pm .030$	1.500	✓			
1.00	$\pm .030$	1.000	✓			
0.67	$\pm .030$	0.660	✓			
0.415	$\pm .005$ -0.000	0.420	✓			
0.08x45°	$\pm .030$ $\pm .5^\circ$	0.075x45°	✓			
Ø 0.257	$\pm .006$ $-.001$	0.260	✓			
0.400	$\pm .010$	0.399	✓			
R 0.38	$\pm .030$	0.380	✓			
2.45	$\pm .030$	2.438	✓			
3.4	$\pm .100$	3.443	✓			
10.3	$\pm .100$	10.285	✓			
5.5	$\pm .100$	5.526	✓			
3.4	$\pm .100$	3.443	✓			
2.45	$\pm .030$	2.447	✓			
0.13x45°	$\pm .030$ $\pm .5^\circ$	0.125x45°	✓			

Measured by:	33 9-80	Checked by:	45 2-80	QC Inspector:	
Date:	16/11/17	Date:	16/11/17	Date:	

Engineering Approval: (If necessary)		Date:	
--	--	--------------	--

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

Jean-Luc Menard

From: Victoria Seib
Sent: Monday, November 14, 2016 4:28 PM
To: Jean-Luc Menard
Subject: RE: d5359-1 Deviation acceptable?

Ok, we are good with this deviation.

Victoria

From: Jean-Luc Menard
Sent: Monday, November 14, 2016 10:43 AM
To: Victoria Seib <vseib@dartaero.com>
Subject: RE: d5359-1 Deviation acceptable?

.120" even each side.

JL

From: Victoria Seib
Sent: Monday, November 14, 2016 12:34 PM
To: Jean-Luc Menard <jmenard@dartaero.com>
Subject: RE: d5359-1 Deviation acceptable?

Hey JL!

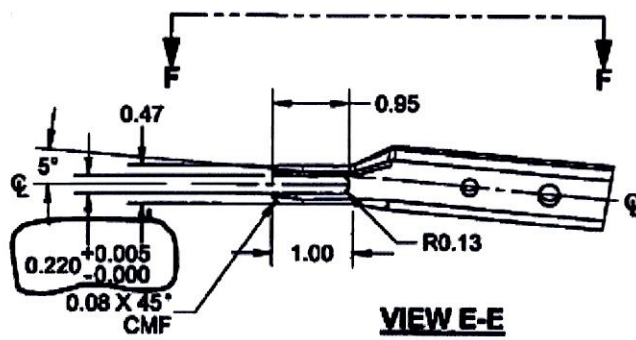
Quick question, how thick are the tangs in either side of the groove after the deviation?

Victoria

From: Jean-Luc Menard
Sent: Monday, November 14, 2016 9:23 AM
To: Victoria Seib <vseib@dartaero.com>
Subject: d5359-1 Deviation acceptable?

Hi Victoria,
As discussed, we are coming in at .226-.230" on the slot.
Let me know if this is acceptable.
THX
JL

VIEW F-F



Jean-Luc Menard
Production Engineering Supervisor

DART AEROSPACE
T 1 613 632-5200 > 227
F 1 613 632-5246
1 800 556- 4166
www.dartaerospace.com

